

Notice of Allowability

Application No.

10/781,212

Examiner

Anastasia Midkiff

Applicant(s)

MYERS ET AL.

Art Unit

2882

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Applicant Amendment, dated 09 October 2006.
2. ☒ The allowed claim(s) is/are 1 and 3-40.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

ASM *asm*
12/20/06

DETAILED ACTION

Allowable Subject Matter

Claims 1 and 3-40 are allowed.

The following is an examiner's statement of reasons for allowance:

With respect to Claim 1, the prior art of record teaches many of the elements of the claimed invention, including a photonic assisted emitter, comprising: an electron source layer, a thin metal layer, and a tunneling layer disposed between the at least partially transparent electron source layer and the thin metal layer.

However, the prior art does not teach or fairly suggest the emitter wherein the electron source layer is at least partially transparent and comprises optically transparent metal oxide, in the manner required by Claim 1.

Claims 3-4, 6-10, 15-17, and 24-31 are allowed by virtue of their dependency upon Claim 1.

With respect to Claim 5, the best prior art of record teaches many of the elements of the claimed invention, including a photonic assisted emitter, comprising: an electron source layer, a thin metal layer, and a tunneling layer disposed between the at least partially transparent electron source layer and the thin metal layer.

However, the prior art does not teach or fairly suggest the emitter wherein said tunneling layer comprises nodular silicon and the electron source layer is at least partially transparent in the manner required by Claim 5.

With respect to Claim 11, the best prior art of record teaches many of the elements of the claimed invention, including a photonic assisted emitter, comprising: an

Art Unit: 2882

electron source layer, a thin metal layer, and a tunneling layer disposed between the at least partially transparent electron source layer and the thin metal layer.

However, the prior art does not teach or fairly suggest the emitter wherein said thin metal layer comprises a porous thin metal layer having nanohole openings and the electron source layer is at least partially transparent in the manner required by Claim 11.

Claims 12-14 are allowed by virtue of their dependency upon Claim 11.

With respect to Claim 18, the best prior art of record teaches many of the elements of the claimed invention, including a photonic assisted emitter, comprising: an electron source layer, a thin metal layer, and a tunneling layer disposed between the at least partially transparent electron source layer and the thin metal layer, and further comprising a light emitting layer.

However, the prior art fails to teach or fairly suggest the emitter wherein the transparent conducting layer is disposed on the light emitting layer and the electron source layer is at least partially transparent in the manner required by Claim 18.

Claims 19-23 are allowed by virtue of their dependency upon Claim 18.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

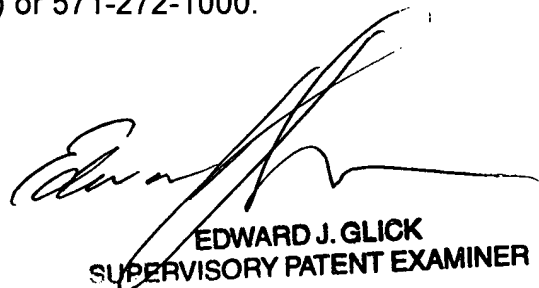
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anastasia Midkiff whose telephone number is 571-272-5053. The examiner can normally be reached on M-F 7-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Glick can be reached on 571-272-2490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ASM
12/20/06



EDWARD J. GLICK
SUPERVISORY PATENT EXAMINER